

3/2 Control Block Redundant Design „2 out of 3“

Solenoid actuated
Port size
Female thread G 3/8

- „2 out of 3“ control block (3 redundancies)
- High flow rate
- Maintenance free
- Safety function in the event of power failure provided by mechanical spring
- Functional test of the 3 redundancies possible during operation
- Switching position monitoring via inductive proximity switch (OPEN/CLOSED)
- Suitable for use in exposed locations with severe environmental conditions
- Minimal electrical power consumption



Technical data

Medium:

Filtered, lubricated or non-lubricated compressed air, instrument air, nitrogen and other neutral fluids

Nominal diameter:

6 mm

Port size:

P, A, R: G 3/8; Z: G 1/4

Operating pressure:

2,5 to 8 bar with internal air supply

0 to 8 bar with external air supply

Temperatures:

See solenoid table

Material:

Body hard anodized aluminium

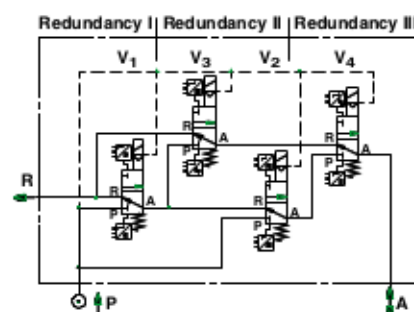
Seals NBR

Ordering example

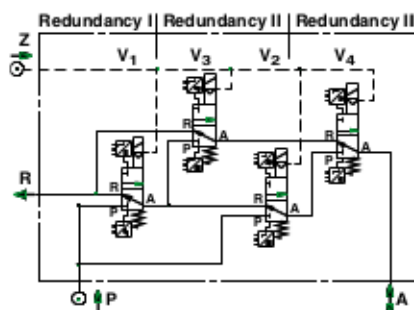
3/2 control block, nominal diameter 6, solenoid
24 V DC, protection class IP 00

Type: 1025193.0763.024.00

Internal pilot air supply

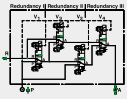
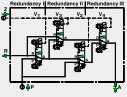


External pilot air supply





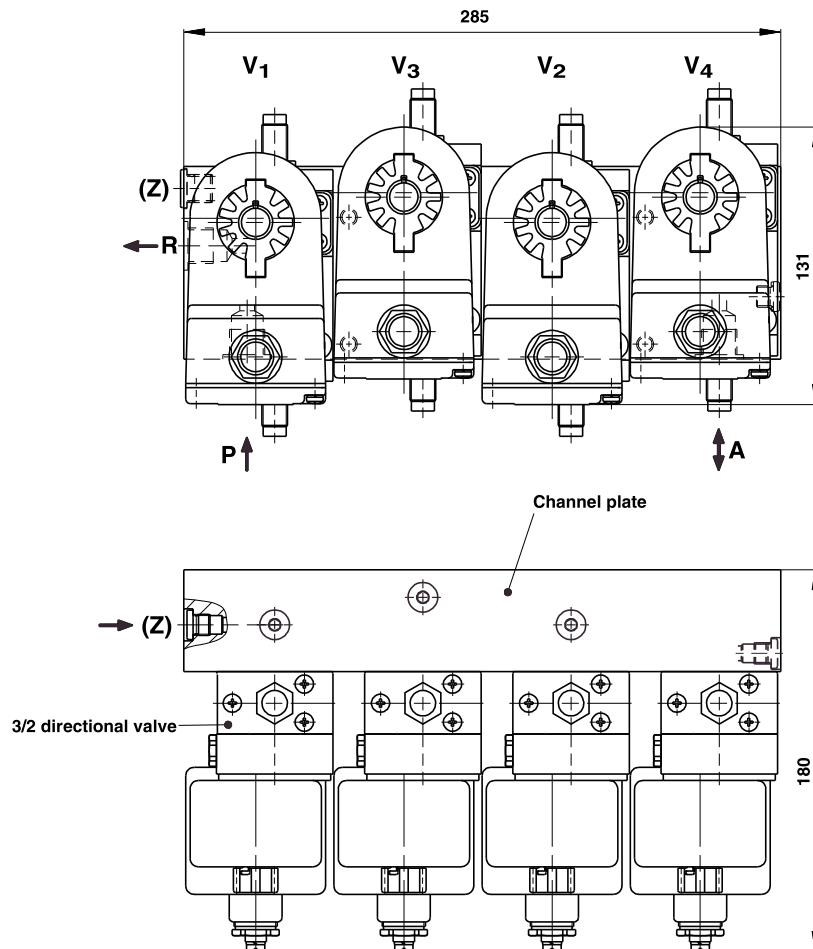
General information

Symbol	Type	Port size P, A, R	Z	Nominal diameter	Operating pressure (bar) with internal air supply	with external air supply	Pilot air supply external via Z (bar)	Weight (kg)
 	1025193.*	G 3/8	G 1/4	6	2,5 ... 8	0 ... 8	2,5 ... 8	3



* When ordering please indicate solenoid, voltage and current type (frequency)

Dimensional drawing valve

M01







Proximity switch

Functional principle:	Inductive	Norm symbol: BN = brown BU = blue	 BN + BU DC -
Manufacturer:	Pepperl +Fuchs Type NJ2-12GK-SN		
Electrical version:	DC 2-wire circuit to DIN 19 234 (NAMUR)	Function:	(NC, normally closed)
Operating voltage:	U _B = 5 ... 25 V DC		
Residual ripple:	≤ 5%	 Output open with undamped proximity switch (active surface free). Output closed with damped proximity switch (active surface covered).	
Rated voltage:	U _N = 8 V DC (Ri ca. 1kΩ)		
Power consumption at rated voltage active surface free:	≥ 3 mA		
active surface covered:	≤ 1 mA		
Ambient temperature:	233 to 373 Kelvin (-40°C to +100°C)		
Protection class (DIN 40050):	IP 68		
Housing material:	PEFU Ryton 9-332		



Solenoid parameters


	Type	Current draw 24V DC (W)	230V AC (VA)	Rated current at 24V DC (mA)	230V AC (mA)	Protection class	Temperature Fluid max. (°C)	Ambience (°C)	Weight (kg)	Dimensional drawing	Circuit diagram
	0763⁴⁾	1,9	-	78	-	IP00 w/o connector IP65 with connector DIN 43650 Form A	+80	-25 ... +60	0,3	M06	SB01
	0278	3,2	-	135	-	EEx m II T4 ¹⁾ with cable 3 m	+70	-20 ... +70	0,4	M05	SB04
	0279	-	3,5	-	15						SB07
	4200⁵⁾	0,7	-	26	-	EEx me II T5/T6 ²⁾	-20 ... +80 (T5) -40 ... +70 (T6)		0,85	M04	SB04
	4201⁵⁾	-	1,3	-	24	EEx me II T5/T6 ²⁾	-20 ... +80 (T5) -40 ... +60 (T6)		0,85	M04	SB07
	3720	1,4	-	59	-	NEMA 4, 4X, 6, 6P, 7, 9 ³⁾ stranded wire 460 mm long	+60		0,4	M07	SB01

Standard voltages 24V DC, 230V AC. Other voltages on request.
Design acc. to VDE 0580, EN 50014/50028. 100% duty cycle.

- 1) Certificate of Conformity KEMA No. Ex-93.C.8283 X
2) Category II2G, EC Type Examin. Certificate KEMA 98 ATEX 4452X
3) **CSA-LR 57643-6, FM** approved, for hazardous locations:
Div. 1 and 2, Class I, II, III

- 4) Required connector for DC: Type 0570275.
Connector with rectifier for AC or universal current: Type 0663303
5) Cable gland is not included in delivery


Solenoid actuators for intrinsically-safe circuits, protection class EEx ia IIC T6** zone 1 and 2

	Type	Nominal resist. R _v Coil (Ω)	Min. required switching current (mA)	Resistance R _{w 65} Coil* (Ω)	Required voltage at terminal R _{w 65}	Ambient temperature (°C)	Max. Fluid- temperature (°C)	Weight (kg)	Dimensional drawing No.	Circuit diagram No.
	2030	124	43	150	6.4	-40 ... +65	+65	0,83	M02	SB10
	2031	159	38	193	7.3					
	2032	198	34	240	8.2					
	2033	248	30	301	9.0					
	2034	306	27	371	10.0					
	2035	378	25	458	11.5					
	2036	467	23	566	13.0					
	2037	566	21	686	14.4					
	2038	692	19	839	15.9					

When selecting an intrinsically safe power supply, the permissible maximum values according to the Certificate of Conformity PTB No. Ex-95.D.2178 should be taken into account. On the other hand, the low effective inductivity and capacity can be ignored.

Solenoid actuators with FM-approval

Intrinsically safe: IS/I, II, III/1/ABCEFG/ T6 Ta = 65 °C; I/O AEx ia IIC/ T6 Ta = 65 °C - 0588672/B; Entity
Nonincendive: NI/I/2/ABCD/ T6 Ta = 65 °C; S/II,III/2/FG/T6 Ta = 65 °C; NEMA Type 4

	Type	Nominal resist. R _v Coil (Ω)	Min. required switching current (mA)	Resistance R _{w 65} Coil* (Ω)	Required voltage at terminal R _{w 65}	Ambient temperature (°C)	Max. Fluid- temperature (°C)	Weight (kg)	Dimensional drawing No.	Circuit diagram No.
	2040	124	43	150	6.4	-40 ... +65	+65	0,83	M03	SB10
	2041	159	38	193	7.3					
	2042	198	34	240	8.2					
	2043	248	30	301	9.0					
	2044	306	27	371	10.0					
	2045	378	25	458	11.5					
	2046	467	23	566	13.0					
	2047	566	21	686	14.4					
	2048	692	19	839	15.9					

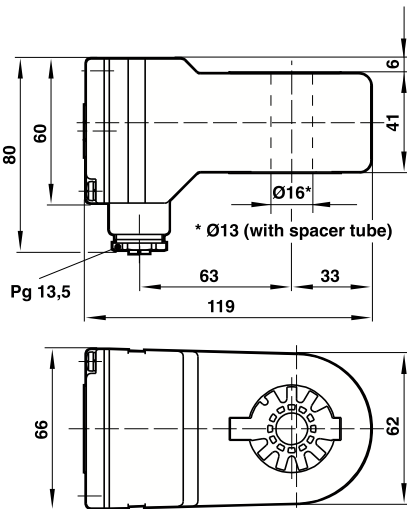
When selecting an intrinsically safe power supply, the permissible maximum values according to the FM-approval should be taken into account. On the other hand, the low effective inductivity and capacity can be ignored.

- * R_{w 65} is the solenoid coil resistance at an ambient temperature of +65°C, including internal heat generation, with max. permissible power.
** Certificate of Conformity PTB No. Ex-95.D.2178

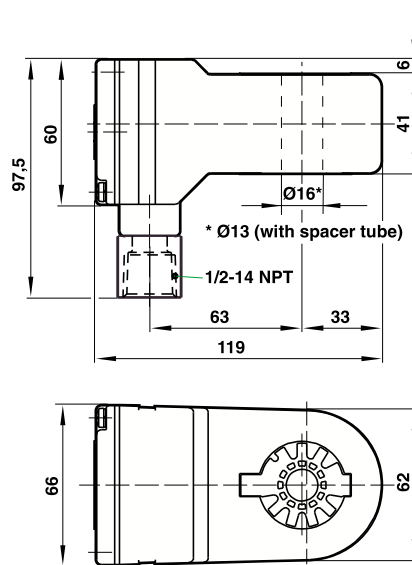


Dimensional drawings solenoids

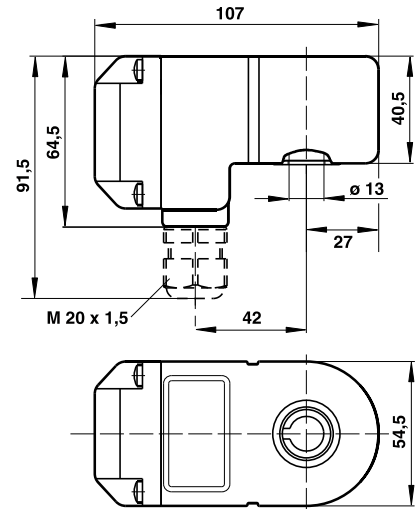
M02



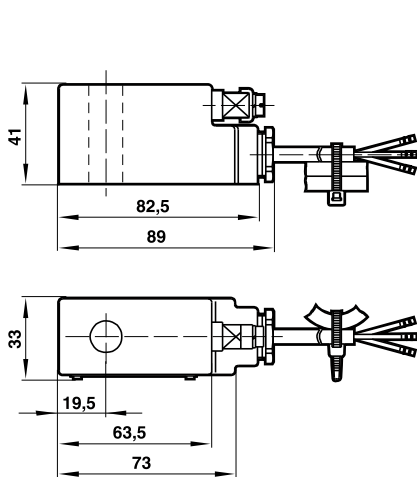
M03



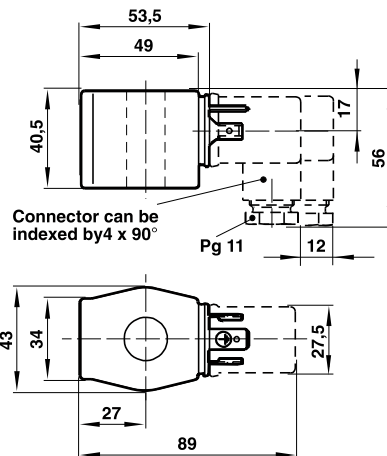
M04



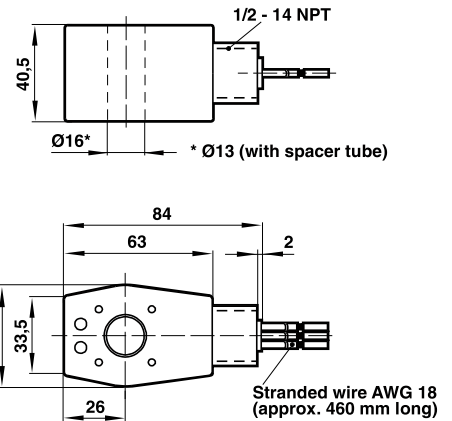
M05



M06

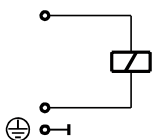


M07

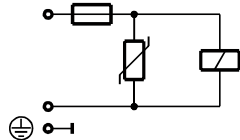


Electrical circuit diagrams

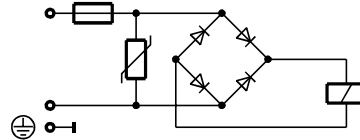
SB01



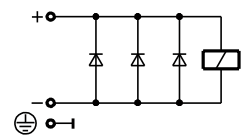
SB04



SB07



SB10



Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under 'Technical Data'.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all

component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products where applicable.